

The Clash of Cultures: Indians, Europeans, and the Environment

William Cronon and Richard White

One of the most interesting and productive recent developments in the study of American history has been work dealing with the interrelations between people and their environment. In part, this work is a result of our current concern with pollution and the exhaustion of valuable natural resources, but it has also proved to be a valuable way of learning more about how people of past generations and different cultures dealt with nature and with one another. The following discussion between two leading American "environmental" historians makes clear how much light this approach throws on the culture of the American Indians and their relations with European colonists.

William Cronon of Yale University is the author of *Changes in the Land: Indians, Colonists and the Ecology of New England*. This book, which won the 1984 Parkman Prize, is a study of how Indians and European settlers shaped and were in turn influenced by the New England landscape. Richard White, a professor of history at the University of Utah, has published *Land Use, Environment, and Social Change and The Roots of Dependency*, an environmental history of three Indian tribes.

WILLIAM CRONON: If historians thought about the environment at all up until a few years ago, they thought of it in terms of an older school of American historians who are often called "environmental determinists." People like Frederick Jackson Turner argued that Europeans came to North America, settled on the frontier, and began to be changed by the environment.

RICHARD WHITE: In a delayed reaction to Turner, historians in the late 1960s and early 1970s reversed this. They began to emphasize a series of horror stories when they wrote about the environment. The standard metaphor of the time was "the rape of the earth," but what they were really describing was the way Americans moving west cut down the forests, ploughed the land, destroyed the grasslands, harnessed the rivers—how they in effect transformed the whole appearance of the North American landscape.

WILLIAM CRONON: Since then, I think, we've realized that both positions are true, but incomplete. The real problem is that human beings reshape the earth as they live upon it, but as they reshape it, the new form of the earth has an influence on the way those people can live. The two reshape each other. This is as true of Indians as it is of European settlers.

RICHARD WHITE: My first connections with Indians in the environment was very immediate. I became interested because of fishing-rights controversies in the Northwest, in which the Indians' leading opponents included several major environmental organizations. They argued that Indians were destroying the fisheries. What made this odd was that these same groups also held up Indi-

ans as sort of primal ecologists. I remember reading a Sierra Club book which claimed that Indians had moved over the face of the land and when they left you couldn't tell they'd ever been there. Actually, this idea demeans Indians. It makes them seem simply like an animal species, and thus deprives them of culture. It also demeans the environment by so simplifying it that all changes come to seem negative—as if somehow the ideal is never to have been here at all. It's a crude view of the environment, and it's a crude view of Indians.

WILLIAM CRONON: Fundamentally, it's an ahistorical view. It says not only that the land never changed—"wilderness" was always in this condition—but that the people who lived upon it had no history, and existed outside of time. They were "natural."

RICHARD WHITE: That word *natural* is the key. Many of these concepts of Indians are quite old, and they all picture Indians as people without culture. Depending on your view of human nature, there are two versions. If human beings are inherently evil in a Calvinistic sense, then you see Indians as inherently violent and cruel. They're identified with nature, but it's the nature of the howling wilderness, which is full of Indians. But if you believe in a beneficent nature, and a basically good human nature, then you see Indians as noble savages, people at one with their environment.

WILLIAM CRONON: To understand how Indians really did view and use their environment, we have to move beyond these notions of "noble savages" and "Indians as the original ecologists." We have to look instead at how they actually lived.

RICHARD WHITE: Well, take the case of fire. Fire transformed environments all over the continent. It was a basic tool used by Indians to reshape landscape, enabling them to clear forests to create grasslands for hunting and fields for planting. Hoe agriculture—as opposed to the plow agriculture of the Europeans—is another.

WILLIAM CRONON: There's also the Indians' use of "wild" animals—animals that were not domesticated, not owned in ways Europeans recognized. Virtually all North American Indians were intimately linked to the animals around them, but they had no cattle or pigs or horses.

RICHARD WHITE: What's hardest for us to understand, I think, is the Indians' different way of making sense of species and the natural world in general. I'm currently writing about the Indians of the Great Lakes region. Most of them thought of animals as a species of *persons*. Until you grasp that fact, you can't really understand the way they treated animals. This is easy to romanticize—it's easy to turn it into a "my brother the buffalo" sort of thing. But it wasn't. The Indians *killed* animals. They often overhunted animals. But when they overhunted, they did so within the context of a moral universe that both they and the animals inhabited. They conceived of animals as having, not rights—that's the wrong word—but *powers*. To kill an animal was to be involved in a social relationship with the animal. One thing that has impressed me about Indians I've known is their realization that this is a harsh planet, that they survive by the deaths of other creatures. There's no attempt to gloss over that or romanticize it.

WILLIAM CRONON: There's a kind of debt implied by killing animals.

RICHARD WHITE: Yes. You incur an obligation. And even more than the obligation is your sense that those animals have somehow surrendered themselves to you.

WILLIAM CRONON: There's a gift relationship implied. . . .

RICHARD WHITE: . . . which is also a *social* relationship. This is where it becomes almost impossible to compare Indian environmentalism and modern white environmentalism. You cannot take an American forester or an American wildlife manager and expect him to think that he has a special social relationship with the species he's working on.

WILLIAM CRONON: Or that he owes the forest some kind of gift in return for the gift of wood he's taking from it.

RICHARD WHITE: Exactly. And it seems to me hopeless to try to impose that attitude onto Western culture. We distort Indian reality when we say Indians were conservationists—that's not what conservation means. We don't give them full credit for their view, and so we falsify history.

Another thing that made Indians different from modern Euro-Americans was their commitment to producing for *security* rather than for maximum yield. Indians didn't try to maximize the production of any single commodity. Most tried to attain security by diversifying their diet, by following the seasonal cycles: they ate what was most abundant. What always confused Europeans was why Indians didn't simply concentrate on the most productive part of the cycle: agriculture, say. They could have grown more crops and neglected something else. But once you've done that, you lose a certain amount of security.

WILLIAM CRONON: I like to think of Indian communities having a whole series of ecological nets under them. When one net failed, there was always another underneath it. If the corn died, they could always hunt deer or gather wild roots. In hard times—during an extended drought, for instance—those nets became crucial.

All of this was linked to seasonal cycles. For me, one of the best ways of understanding the great diversity of environmental practices among Indian peoples is to think about the different ways they moved across the seasons of the year. Because the seasons of North America differ markedly between, say, the Eastern forests and the Great Plains and the Southwestern deserts, Indian groups devised quite different ways of life to match different natural cycles.

New England is the region I know best. For Indians there, spring started with hunting groups drawing together to plant their crops after having been relatively dispersed for the winter. While women planted beans, squash, and corn, men hunted the migrating fish and birds. They dispersed for summer hunting and gathering while the crops matured, and then reassembled in the fall. The corn was harvested and great celebrations took place. Then, once the harvest was done and the corn stored in the ground, people broke up their villages and fanned out in small bands for the fall hunt, when deer and other animals were at their fattest. The hunt went on until winter faded and the season of agriculture began again. What they had was agriculture during one part of the year, gathering going on continuously, and hunting concentrated in special seasons. That was typical not just of the Indians of New England but of eastern Indians in general.

RICHARD WHITE: For me the most dramatic example of seasonal changes among Indian peoples would be the horticulturalists of the eastern Great Plains. The Pawnees are the example I know best. Depending on when you saw the Pawnees, you might not recognize them as the same people. If you came upon them in the spring or early fall, when they were planting or harvesting crops, you would have found a people living in large, semisubterranean earth lodges and surrounded by scattered fields of corn and beans and squash. They looked like horticultural people. If you encountered the Pawnees in early summer or late fall, you would have thought you were seeing Plains nomads—because then they followed the buffalo, and their whole economy revolved around the buffalo. They lived in tepees and were very similar, at least in outward appearance, to the Plains nomads who surrounded them.

For the Pawnees, these cycles of hunting and farming were intimately connected. One of my favorite examples is a conversation in the 1870s between the Pawnee Petateshoro and a Quaker Indian agent who was trying to explain to him why he should no longer hunt buffalo. Suddenly a cultural chasm opens between them, because Petateshoro is trying to explain that the corn will not grow without the buffalo hunt. Without buffalo to sacrifice at the ceremonies, corn will not come up and the Pawnee world will cease. You see them talking, but there's no communication.

WILLIAM CRONON: It's difficult for a modern American hearing this to see Petateshoro's point of view as anything other than alien and wrong. This notion of sacrificing buffalo so corn will grow is fundamental to his view of nature, even though it's utterly different from what *we* mean when we call him a conservationist.

RICHARD WHITE: And yet, if you want to understand people's actions historically, you have to take Petateshoro seriously.

WILLIAM CRONON: Environmental historians have not only been reconstructing the ways Indians used and thought about the land, they've also been analyzing how those things changed when the Europeans invaded. A key discovery of the last couple of decades has been our radically changed sense of how important European disease was in changing Indian lives.

RICHARD WHITE: It was appalling. Two worlds that had been largely isolated suddenly came into contact. The Europeans brought with them diseases the Indians had never experienced. The resulting death rates are almost impossible to imagine: 90 to 95 percent in some places.

WILLIAM CRONON: The ancestors of the Indians came to North America from ten to forty thousand years ago. They traveled through an Arctic environment in which many of the diseases common to temperate and tropical climates simply couldn't survive. They came in groups that were biologically too small to sustain those diseases. And they came without the domesticated animals with which we share several of our important illnesses. Those three circumstances meant that Indians shed many of the most common diseases of Europe and Asia. Measles, chicken pox, smallpox, and many of the venereal diseases vanished during migration. For over twenty thousand years, Indians lived without encountering these illnesses, and so lost the antibodies that would ordinarily have protected them.

RICHARD WHITE: Most historians would now agree that when the Europeans arrived, the Indian population of North America was between ten and twelve million (the old estimate was about one million). By the early twentieth century it had fallen to less than five hundred thousand. At the same time, Indian populations were also under stress from warfare. Their seasonal cycles were being broken up, and they were inadequately nourished as a result. All these things contributed to the tremendous mortality they suffered.

WILLIAM CRONON: Part of the problem was biological; part of it was cultural. If a disease arrived in mid-summer, it had quite different effects from one that arrived in the middle of the winter, when people's nutrition levels were low and they were more susceptible to disease. A disease that arrived in spring, when crops had to be planted, could disrupt the food supply for the entire year. Nutrition levels would be down for the whole subsequent year, and new diseases would find reader victims as a result.

RICHARD WHITE: The effects extended well beyond the original epidemic—a whole series of changes occurred. If Indian peoples in fact shaped the North American landscape, this enormous drop in their population changed the way the land looked. For example, as the Indians of the Southeast died in what had once been a densely populated region with a lot of farmland, cleared areas reverted to grassy woodland. Deer and other animal populations increased in response. When whites arrived, they saw the abundance of animals as somehow natural, but it was nothing of the sort.

Disease also dramatically altered relationships among Indian peoples. In the 1780s and 1790s the most powerful and prosperous peoples of the Great Plains margins were the Mandans, the Arikaras, the Hidatsas, the Pawnees, all of whom raised corn as part of their subsistence cycles. Nomadic, nonagricultural groups like the Sioux were small and poor. Smallpox changed all that. Those peoples living in large, populous farming villages were precisely those who suffered the greatest death rates. So the group that had once controlled the region went into decline, while another fairly marginal group rose to historical prominence.

WILLIAM CRONON: That's a perfect example of biological and cultural interaction, of how complex it is. A dense population is more susceptible to disease than a less dense one; that's a biological observation true of any animal species. But which Indian communities are dense and which are not, which ones are living in clustered settlements and which ones are scattered thinly on the ground—these aren't biological phenomena but *cultural* ones.

RICHARD WHITE: Perhaps the best example of this is the way different Plains Indians responded to the horse, which, along with disease, actually preceded the arrival of significant numbers of Europeans in the region. The older conception of what happened is that when the horse arrived, it transformed the world. That may have been true for the Sioux, but not for the Pawnees. The Sioux became horse nomads; the Pawnees didn't. They were not willing to give up the security of raising crops. For them, the horse provided an ability to hunt buffalo more efficiently, but they were not about to rely solely on buffalo. If the buffalo hunt failed, and they had neglected their crops, they would be in great trouble. As far as I know, there is no agricultural group, with the

exception of the Crows and perhaps the Cheyennes, that *willingly* gave up agriculture to rely solely on the buffalo. The people like the Sioux who became Plains nomads had always been hunters and gatherers, and for them horses represented a *more* secure subsistence, not a less secure one.

WILLIAM CRONON: It's the ecological safety net again. People who practiced agriculture were reluctant to abandon it, because it was one of their strongest nets.

RICHARD WHITE: And they didn't. When given a choice, even under harsh circumstances, people tried to integrate the horse into their existing economy, not transform themselves.

The horse came to the Sioux at a time when they were in trouble. Their subsistence base had grown precarious: the buffalo and beavers they'd hunted farther east were declining, and the decline of the farming villages from disease meant the Sioux could no longer raid or trade with them for food. The horse was a godsend: buffalo hunting became more efficient, and the buffalo began to replace other food sources. Having adopted the horse, the Sioux moved farther out onto the Plains. By the time they had their famous conflicts with the United States in the 1860s and 1870s, they were the dominant people of the Great Plains. Their way of life was unimaginable without the horse and buffalo.

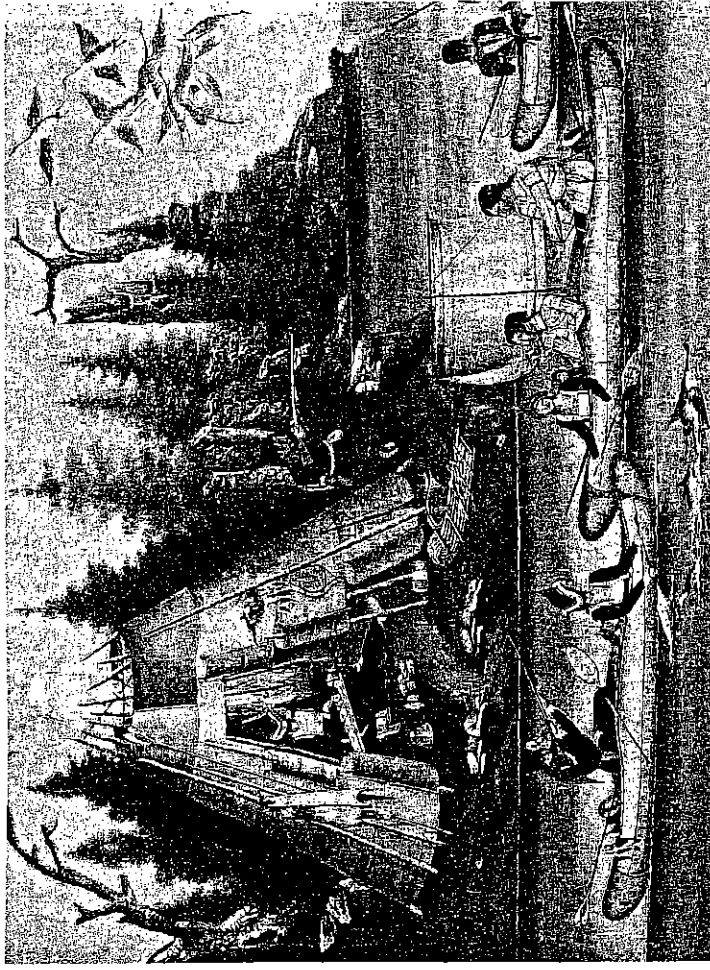
WILLIAM CRONON: The result was that the Sioux reduced the number of ecological nets that sustained their economy and way of life. And although the bison were present in enormous numbers when the Sioux began to adopt the horse, by the 1860s the bison were disappearing from the Plains; by the early eighties they were virtually gone. That meant the Sioux's main ecological net was gone, and there wasn't much left to replace it.

RICHARD WHITE: To destroy the buffalo was to destroy the Sioux. Of course, given time, they might have been able to replace the buffalo with cattle and become a pastoral people. That seems well within the realm of historical possibility. But they were never allowed that option.

WILLIAM CRONON: Disease and the horse are obviously important factors in Indian history. But there's a deeper theme underlying these things. All North American Indian peoples eventually found themselves in a relationship of dependency with the dominant Euro-American culture. At some point, in various ways, they ceased to be entirely autonomous peoples, controlling their own resources and their own political and cultural life. Is environmental history fundamental to explaining how this happened?

RICHARD WHITE: I think it's absolutely crucial. Compare the history of European settlement in North America with what happened in Asia and Africa. Colonialism in Asia and Africa was very important, but it was a passing phase. It has left a strong legacy, but Africa is nonetheless a continent inhabited by Africans, Asia a continent inhabited by Asians. American Indian peoples, on the other hand, are a small minority in North America. Part of what happened was simply the decline in population, but as we've said, that decline was not simple at all. To understand it, we have to understand environmental history.

Many Indians were never militarily conquered. They nonetheless became dependent on whites, partly because their subsistence economy was systematic-



The appearance of Europeans had a corrupting effect on tribes such as the Micmac Indians of eastern Canada. These Native Americans began killing animals not only for food but also to supply clothing for waiting markets in Europe.

cally undercut. Virtually every American Indian community eventually had to face the fact that it could no longer feed or shelter itself without outside aid. A key aspect of this was the arrival of a market economy in which certain resources came to be overexploited. The fur trade is the clearest example of this.

WILLIAM CRONON: No question. The traditional picture of the fur trade is that Europeans arrive, wave a few guns and kettles and blankets in the air, and Indians come rushing forward to trade. What do they have to trade? They have beaver pelts, deerskins, bison robes. As soon as the incentive is present, as soon as those European goods are there to be had, the Indians sweep across the continent, wipe out the furbearing animals, and destroy their own subsistence. That's the classic myth of the fur trade.

RICHARD WHITE: It simply didn't happen that way. European goods often penetrated Indian communities slowly, Indian technologies held on for a long time. Indians wanted European goods, but for reasons that could be very different from why *we* think they wanted them.

WILLIAM CRONON: One of my favorite examples is the kettle trade. Indians wanted kettles partly because you can put them on a fire and boil water and they won't break. That's nice. But many of those kettles didn't stay kettles for long.

They got cut up and turned into arrowheads that were then used in the hunt. Or they got turned into high-status jewelry. Indians valued kettles because they were such an extraordinarily flexible resource.

RICHARD WHITE: The numbers of kettles that have turned up in Indian graves proves that their value was not simply utilitarian.

WILLIAM CRONON: The basic facts of the fur trade are uncontested. Europeans sought to acquire Indian furs, food, and land; Indians sought to acquire European textiles, alcohol, guns, and other metal goods. Indians began to hunt greater numbers of fur-bearing animals, until finally several species, especially the beaver, were eliminated. Those are the two end points of the fur-trade story. But understanding how to get from one to the other is very complicated. Why did Indians engage in the fur trade in the first place? That's the question.

RICHARD WHITE: We tend to assume that exchange is straightforward, that it's simply giving one thing in return for another. That is not how it appeared to Indian peoples.

WILLIAM CRONON: Think of the different ways goods are exchanged. One is how we usually perceive exchange today: we go into the local supermarket, lay down a dollar, and get a candy bar in return. Many Europeans in the fur trade thought that was what they were doing—giving a gun, or a blanket, or a kettle and receiving a number of furs in return. But for the Indians the exchange looked very different.

RICHARD WHITE: To see how Indians perceived this, consider two things we all know, but which we don't ordinarily label as "trade." One is gifts. There's no need to romanticize the giving of gifts. Contemporary Americans exchange gifts at Christmas or at weddings, and when those gifts are exchanged, as anybody who has received one knows, you incur an obligation. You often have relatives who never let you forget the gift they've given you, and what you owe in return. There's no *price* set on the exchange, it's a *gift*, but the obligation is very real. That's one way Indians saw exchange. To exchange goods that way, the two parties at least had to pretend to be friends.

At the other extreme, if friendship hadn't been established, goods could still change hands, but here the basis of exchange was often simple theft. If you had enemies, you could rob them. So if traders failed to establish some friendship, kinship, or alliance, Indians felt perfectly justified in attacking them and taking their goods. In the fur trade there was a fine line between people who sometimes traded with each other and sometimes stole from each other.

WILLIAM CRONON: To make that more concrete, when the Indian handed a beaver skin to the trader, who gave a gun in return, it wasn't simply two goods that were moving back and forth. There were *symbols* passing between them as well. The trader might not have been aware of all those symbols, but for the Indian the exchange represented a statement about their friendship. The Indian might expect to rely on the trader for military support, and to support him in return. Even promises about marriage, about linking two communities together, might be expressed as goods passed from hand to hand. It was almost as if a language was being spoken when goods were exchanged. It took a long time for the two sides to realize they weren't speaking the same language.

RICHARD WHITE: Right. But for Indians the basic meanings of exchange were clear. You gave generously to friends; you stole from enemies. Indians also recognized that not everybody could be classified simply as a friend or an enemy, and this middle ground is where trade took place.

But even in that middle ground, trade always began with an exchange of gifts. And to fail to be generous in your gifts, to push too hard on the price—Indians read that as hostility. When Europeans tried to explain the concept of a "market" to Indians, it bewildered them. The notion that demand for furs in London could affect how many blankets they would receive for a beaver skin in Canada was quite alien to them. How on earth could events taking place an ocean away have anything to do with the relationship between two people standing right here who were supposed to act as friends and brothers toward each other?

WILLIAM CRONON: So one thing Indian peoples had trouble comprehending at certain stages in this dialogue was the concept of *price*: the price of a good fluctuating because of its abundance in the market. Indian notions were much closer to the medieval "just price." This much gunpowder is always worth this many beaver skins. If somebody tells me they want twice as many skins for the same gunpowder I bought last year at half the price, suddenly they're being treacherous. They're beginning to act as an enemy.

RICHARD WHITE: Or in the words Algonquians often used, "This must mean my father doesn't love me any more." To Europeans that kind of language seems ludicrous. What in the world does love have to do with giving a beaver skin for gunpowder? But for Indians it's absolutely critical.

Of course, exchange became more commercial with time. Early in the fur trade, Indians had received European goods as gifts, because they were allies against other Indians or other Europeans. But increasingly they found that the only way to receive those goods was through direct economic exchange. Gift giving became less important, and trading goods for set prices became more important. As part of these commercial dealings, traders often advanced loans to Indians before they actually had furs to trade. By that mechanism, gifts were transformed into debts. Debts could in turn be used to coerce greater and greater hunting from Indians.

WILLIAM CRONON: As exchange became more commercial, the Indians' relationship to animals became more commercial as well. Hunting increased with the rise in trade, and animal populations declined in response. First the beaver, then the deer, then the bison disappeared from large stretches of North America. As that happened, Indians found themselves in the peculiar position of relying more and more on European goods but no longer having the furs they needed to acquire them. Worse, they could no longer even *make* those same goods as they once had, in the form of skin garments, wild meat, and so on. That's the trap they fell into.

RICHARD WHITE: And that becomes dependency. That's what Thomas Jefferson correctly and cynically realized when he argued that the best way for the United States to acquire Indian lands was to encourage trade and have government storehouses assume Indian debts. Indians would have no choice but to cede their lands to pay their debts, and they couldn't even renounce those debts

because they now needed the resources the United States offered them in order to survive. Not all tribes became involved in this, but most who relied on the fur trade eventually did.

Of course, the effects go both ways. As whites eliminated Indians and Indian control, they were also, without realizing it, eliminating the forces that had shaped the landscape itself. The things they took as natural—why there were trees, why there weren't trees, the species of plants that grew there—were really the results of Indian practices. As whites changed the practices, those things vanished. Trees began to invade the grassland, and forests that had once been open became closed.

WILLIAM CRONON: Once the wild animals that had been part of the Indians' spiritual and ecological universe began to disappear, Europeans acquired the land and began to transform it to match their assumptions about what a "civilized" landscape should look like. With native animals disappearing, other animals could be brought in to use the same food supply that the deer, the moose, and the bison had previously used. And so the cow, the horse, the pig—the animals so central to European notions of what an animal universe looks like—began to move across the continent like a kind of animal frontier. In many instances the Indians turned to these domesticated European species to replace their own decreasing food supply and so adopted a more pastoral way of life. As they lost their lands, they were then stuck with the problem of feeding their animals as well as themselves.

RICHARD WHITE: The Navajos are a good example of this. We tend to forget that Indians don't simply vanish when we enter the twentieth century. The Navajos are perhaps the group who maintained control over their own lands for the longest time, but their control was increasingly subject to outside pressures. They very early adopted European sheep, which became more and more important to their economy, both because wild foods were eliminated and because the government strongly encouraged the Navajos to raise more sheep. They built up prosperous herds but were gradually forced to confine them to the reservation instead of the wider regions they had grazed before.

The result was a crisis on the Navajo reservation. The land began to erode. By the 1920s and 1930s the Navajos had far more sheep than could be sustained during dry years. And here's where one of the more interesting confrontations between Indians and conservationists took place. The government sought to reduce Navajo stock, but its own motives were mixed. There was a genuine fear for the Navajos, but the main concern had to do with Boulder Dam. Conservationists feared Lake Mead was going to silt up, and that the economic development of the Southwest would be badly inhibited.

What they didn't understand were the causes of erosion. They blamed it all on Navajo sheep, but it now appears that there was a natural gullying cycle going on in the Southwest. Anybody familiar with the Southwest knows that its terrain is shaped by more than sheep and horses, no matter how badly it is overgrazed. So the result of government conservation policy for the Navajos was deeply ironic. Having adjusted to the European presence, having prospered with their sheep, they found their herds being undercut by the govern-

ment for the good of the larger economy. It's a classic case of Indians—as the poorest and least powerful people in a region—forced to bear the brunt of economic-development costs. So the Navajo economy was again transformed.

As the Navajos became poorer and poorer, they grew more willing to lease out oil and allow strip mining on the reservation. They found themselves in the familiar situation of being forced to agree to practices that were harmful, even in their view, to the land. They had to do it in order to survive, but they were then attacked by white conservationists for abandoning their own values.

WILLIAM CRONON: A real no-win situation.

RICHARD WHITE: There are lessons in all this. We can't copy Indian ways of understanding nature, we're too different. But studying them throws our own assumptions into starker relief and suggests shortcomings in our relationships with nature that could cost us dearly in the long run.

WILLIAM CRONON: I think environmental history may be capable of transforming our perspective, not just on Indian history, but on all human history. The great arrogance of Western civilization in the industrial and postindustrial eras has been to imagine human beings existing somehow apart from the earth. Often the history of the industrial era has been written as if technology has liberated human beings so that the earth has become increasingly irrelevant to modern civilization—when in fact all history is a long-standing dialogue between human beings and the earth. It's as if people are constantly speaking to the earth, and the earth is speaking to them. That's a way of putting it that Indians would be far more capable of understanding than most modern Americans. But this dialogue, this conversation between earth and the inhabitants of earth, is fundamental to environmental history. With it we can try to draw together all these pieces—human population changes, cultural changes, economic changes, environmental changes—into a complicated but unified history of humanity upon the earth. That, in rather ambitious terms, is what environmental historians are seeking to do.